

**TESTIMONY BEFORE THE SUBCOMMITTEE ON WATER RESOURCES AND
ENVIRONMENT, HOUSE TRANSPORTATION
AND INFRASTRUCTURE COMMITTEE,
REGARDING ASIAN CARP AND THE GREAT LAKES**

by

**Rebecca Humphries, Director
Michigan Department of Natural Resources and Environment
Constitution Hall
525 W. Allegan Street
Lansing, Michigan 48909
517-373-7917**

**February 9, 2010, 2:00p.m.
Room 2167, Rayburn House Office Building**

Madame Chair and Members of the Subcommittee:

My name is Rebecca Humphries, and I am the Director of the Michigan Department of Natural Resources and Environment. I appreciate the opportunity to testify today about the looming catastrophe that we face if Asian carp become established in the Great Lakes. I also appreciate the members of the Michigan Congressional delegation joining us today and for their past work on this and other Great Lakes issues.

I have been a conservation professional for over 30 years, and my role within the Michigan Department of Natural Resources and Environment is to protect our resources while maximizing recreational opportunities. Allowing Asian carp to populate our Great Lakes will destroy the resource as well as recreational opportunities. We must act swiftly, collaboratively, and wisely to address this crisis.

Invasive species have already created havoc in the Great Lakes. Reports indicate that the cost of biological pollution from invasive species is both massive and rising. In the Great Lakes, total costs for treatment and control of zebra mussels alone reach \$100 million per year. The Great Lakes Fishery Commission reports that for sea lamprey, the program requirements are on the order of \$30 million per year.

Invasive species have profoundly changed the ecosystem of the Great Lakes, significantly impacted the Great Lakes sport and commercial fisheries and have hampered recreation, all of which have a negative effect on Michigan's economy.

Let me give you an example. Lake Huron once had a vibrant salmon sport fishery, with hundreds of charter boats attracting thousands of anglers each year to ports up and down its long coastline. Fishing derbies attracted additional anglers who launched their boats or kept their boats at local marinas. But invasive zebra and quagga mussels

(Eurasian invaders) have caused the collapse of the salmon population, and thus the sport fishery. Gone are the fishing derbies, charter boaters have left the ports, and anglers have moved elsewhere. This was a several hundred million dollar industry, and it is gone.

Michigan has taken aggressive steps to stop the further spread of these foreign invaders, including:

- Requiring that Great Lakes ships adhere to ballast water management practices established by the shipping industry,
- Enacting legislation requiring all ocean-going ships to obtain a permit for ballast water discharges. The permit specifies the use of an approved treatment system to prevent release of invasive species via ballast water,
- Taking legal action to address ballast water issues, including successfully defending our state laws in federal court and challenging federal agencies for their failure to appropriately use existing regulatory authority to act, and
- Administering state regulatory programs to control aquatic nuisance species in our lakes and rivers. These programs include restrictions on transport of invasive species of fish, establishment of a list of invasive species prohibited in Michigan, and participation in actions to control sea lamprey in Great Lakes tributaries.

Despite our best efforts, Asian carp are now at our doorstep.

Michigan has its own steps to prevent Asian carp from entering the Great Lakes. We contributed financially to construction of the electrical barrier in the Chicago Sanitary and Ship Canal. We prohibited possession of live Asian carp in the state, and we participated in the response actions in December 2009 that treated the Canal to remove Asian carp prior to maintenance of the electrical barrier.

I cannot stress the following in simpler terms: Once an invasive species gets established in the lakes, we cannot eradicate it, fully control its spread, or the damage it causes.

But the story of Asian carp does not need to be a legacy of destruction for our children. The Great Lakes community, including Governors, congressional delegations, local government officials, and citizens has proven that they can work together on difficult challenges. Yes, this is a formidable challenge, but together we can and must solve it.

The threat of Asian carp must be treated as a crisis and steps must be implemented immediately to address it. As early as 2003, scientists, governmental officials, and stakeholders were calling for ecological separation of the Great Lakes and the Mississippi River watershed, but we did not act quickly enough. Short-term fixes have

become long-term projects. For example, the installation of the second electrical barrier took over six years, and it is still not fully operational. It took several years to ban the importation of Black Carp and Silver Carp under the Lacey Act. Bighead Carp are still not covered under that Act.

Because of our history of insufficient action, I submit that any long-term actions must only be to install redundant prevention measures.

I started by saying that we must act swiftly, collaboratively, and wisely to address the threat posed by Asian carp.

Here are my recommendations to meet those objectives:

We must immediately take all available measures, consistent with protection of public health and safety, to prevent the migration of Bighead and Silver Carp into Lake Michigan, including:

- Closing and ceasing operation of the O'Brien Lock and the Chicago Lock until a permanent ecological barrier is constructed between the Great Lakes and the Mississippi River watershed. The Army Corp of Engineers must have the authority to close the locks on emergency and permanent bases if necessary,
- Initiating studies to be completed by the end of this year to examine the feasibility of transferring cargo via other transportation systems,
- Operating other water control structures near Lake Michigan – at the O'Brien Lock, the Chicago Controlling Works, and the Wilmette Pumping Station in a manner that will not allow fish to pass into the Lake,
- Installing interim barriers at other locations this year, including barriers between the Des Plaines River and the Canal and in Indiana Harbor and Burns Ditch from the Grand Calumet and Little Calumet Rivers to eliminate the potential for flooding between the two watersheds,
- Completing additional studies related to the biology/ecology of the carp and predictive models to determine the areas at highest risk for colonization in the Great Lakes, including estuaries and bays, drowned river mouths, and river systems,
- Providing additional dollars for continuous monitoring of carp based on risk analyses, with funding on reserve for chemical treatment used as a rapid response mechanism as warranted,
- Communicating with the states on actions and data in a timely manner,

- Operating electrical barrier 2a at optimum voltage and completing electrical barrier 2b this year, and
- Developing and implementing plans for a permanent solution to the problems that would ecologically and physically separate the carp-infested waters of the Mississippi River watershed from the Great Lakes.

We must also develop a proactive campaign to educate the public about the risks and dangers of Asian carp so that they do not get hurt or unknowingly (or knowingly) spread these dangerous fish into inland waters.

We all treasure the Great Lakes and share a commitment to their continued vitality. We must now all share a similar commitment to move aggressively forward to stop the spread of Asian carp. The Great Lakes states may have challenging discussions on specific actions, but that should not stop us from moving forward. Allowing Asian carp to populate our Great Lakes will destroy the resource and the recreational opportunities they provide us.

President Obama and Congress have given the restoration and protection of the Great Lakes new hope with the infusion of \$475 million through the Great Lakes Restoration Initiative. This work will all be in vain if Asian carp are allowed into the Great Lakes.

My submitted testimony has additional attachments.

Thank you, and I would be happy to take questions from the Committee.

January 19, 2010

The President
The White House
Washington, D.C. 20500

Dear Mr. President:

We write to request an immediate summit between Great Lakes governors and senior White House officials to identify a rapid response to the threat posed by Asian carp to the Great Lakes. Given the recent discovery of carp DNA samples above the Chicago Sanitary and Ship Canal barrier and today's Supreme Court decision, it is essential that we quickly implement emergency measures to protect the Great Lakes from carp and other invasive species.


Invasive species have already had a significant impact on the economies of our states, and the introduction of Carp into this already fragile ecosystem will be devastating. The Great Lakes are vitally important not only to the 35 million people that live within their basins, but to the world. The Great Lakes play a part in all aspects of the economy from manufacturing and transportation to trade and tourism, and thus the protection of these resources is critical to our state economies. Your pledge of \$5 billion to restore and protect the Great Lakes and the recent \$475 million down payment on that promise through the Great Lakes Restoration Initiative is welcome and critical, and we pledge to work with you to implement these restoration measures in a timely and effective manner.

We look forward to working with the White House to identify and implement a solution to this critical issue. Thank you for your consideration and we look forward to your response.

Sincerely,



Governor Jennifer M. Granholm
Michigan



Governor Jim Doyle
Wisconsin



STATE OF MICHIGAN
JOHN D. CHERRY, JR.
LT. GOVERNOR

November 13, 2009

Ms. Jo-Ellen Darcy
Assistant Secretary for Civil Works
108 Army Pentagon Room 3E446
Washington, DC 20310-0108

Déar Assistant Secretary Darcy:

I write to you today on a serious matter that is critical to the health of the Great Lakes. Recent information released by the U.S. Army Corps of Engineers indicates that Asian Carp are very close to the partially operational and incomplete electrical barrier in the Chicago Sanitary and Shipping Canal. To avoid the devastating effects of these invasive species in reaching the Great Lakes, specific investments and actions are essential to ensure that the barrier and other infrastructure are controlling the water pathways used by aquatic invasive species. Below I have listed specific actions that need to be continued or initiated.

First, electrical barrier 2B needs to be completed and operational as soon as possible. The design for the electrical barrier in the canal consists of two parts, 2A and 2B. Of the two parts, to date only barrier 2A is operational, leading to serious problems with turning it off for maintenance. Barrier 2B is needed both for full protection from carp dispersal and to provide for maintenance of the electrical barrier as required. As an interim measure, Michigan has supported an emergency response plan to protect the Great Lakes during a period when the existing barrier may be deactivated for maintenance, however, these emergency response efforts falls short of the long-term solution needed. Michigan was pleased to see funding to continue operation of portions of the electrical barrier in the canal and to continue construction of permanent barriers in the fiscal year 2010 Energy and Water Appropriations Act. This work must proceed expeditiously.

Second, safety studies must be quickly completed and procedures put in place to allow for full power operation of barrier 2A. To date, the barrier is operating at only half of its potential due to incomplete safety studies on its operation. Present operations may be enough power to deter adult Asian Carp from passing through the barrier but may not be enough to deter small fish.

Third, a physical barrier, even if temporary, needs to be constructed as soon as possible between the Des Plaines River and the canal to eliminate the potential for flooding between the two waterways. Flooding could allow movement of fish, including Asian Carp, into the canal and vice versa. If the one-year period of authority for this action provided in the Energy and Water Appropriations Act is insufficient, or if additional appropriations are needed to implement timely actions, I urge you to advise our Congressional delegation immediately so that they can continue to support protection of the Great Lakes from Asian Carp. I note it is important to the overall effort in the area of the canal that funding for physically separating the Des Plaines River and the canal not be re-programmed from the critical work on the electrical barrier itself.

Assistant Secretary Darcy

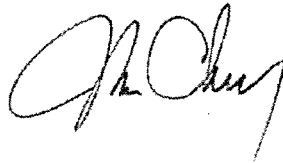
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November 13, 2009

Invasive species, such as Zebra Mussels, Round Goby and Eurasian Ruffe, have already demonstrated devastating environmental and economic effects on both the Great Lakes and Mississippi River watersheds. Further work on a permanent solution to prevent the dispersal of aquatic invasive species needs to proceed in a timely manner. Michigan was pleased to see funding to continue a study, including consultations with key partners on the range of options and technologies to prevent the inter-basin transfer of aquatic invasive species in the fiscal year 2010 Energy and Water Appropriations bill. This is important work for protection much of the U.S. from invasive species dispersal and I would urge you to make the review of issues related to the Chicago Sanitary and Shipping Canal a top priority.

Thank you for your continued attention to this matter. Please let me know if there is anything more the state of Michigan can do to help with this critical work.

Respectfully,

A handwritten signature in black ink, appearing to read "John D. Cherry, Jr.", written in a cursive style.

John D. Cherry, Jr.
Lieutenant Governor



JENNIFER M. GRANHOLM
GOVERNOR

STATE OF MICHIGAN
OFFICE OF THE GREAT LAKES
LANSING

KEN DEBEAUSSAERT
DIRECTOR

November 25, 2009

To Emergency Response Group:

The recent eDNA evidence indicating that Asian Carp may have made their way past the electrical barrier in the Chicago Sanitary and Shipping Canal raises an even higher level of threat to the ecological integrity of the Great Lakes and puts a \$4.5 billion sport and commercial fishery at risk.

While the state of Michigan has supported the Emergency Response Plan developed earlier, in light of the new evidence, we strongly urge you to consider taking additional preventive measures including:

- Emergency closing of the locks in the Cal-Sag Channel, chemical applications in this area, and monitoring until the eDNA evidence is confirmed or ruled out
- Other alternative testing to confirm the eDNA evidence
- Expanding the chemical applications to additional areas where eDNA evidence indicates the presence of Asian Carp

Since the emergency response is planned to begin December 2, 2009, impacts on commerce from emergency closure of the locks is minimal compared to the potential economic harm that could be caused by Asian Carp's introduction. If the emergency response confirms the eDNA evidence, additional and more permanent actions will be necessary to provide protection for the Great Lakes.

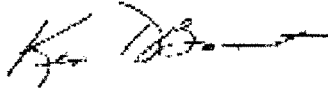
Actions called for in the Great Lakes Regional Collaboration Strategy related to options for permanent separation of the Great Lakes and Mississippi River system must be expedited. Recently, Michigan's Lt. Governor John D. Cherry wrote the Undersecretary of the Army to urge additional actions to protect the Great Lakes, including the completion of the second portion of the new barrier, full utilization of the existing barrier, now operating at minimal levels, creating a physical barrier to block Asian Carp from entering via other waterways during times of flood, and using all existing authorities to explore all options to block the Asian Carp.

As you know, the state of Michigan has long-supported efforts to block Asian Carp from entering the Great Lakes, including prohibiting possession of live Asian Carp here. We have provided direct financial support for the electrical barrier in 2004, have continuously supported federal authorizations and appropriations, and as you know; we are providing manpower, materials, and equipment for the upcoming emergency response along with other states and provinces.

Emergency Response Group
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November 25, 2009

But ultimately at this critical moment, the awesome responsibility to protect the Great Lakes from the introduction of Asian Carp is yours. The actions you take must err on the side of protection of our Great Lakes.

Sincerely,

A handwritten signature in black ink, appearing to read 'Ken DeBeaussiaert', with a horizontal line extending to the right.

Ken DeBeaussiaert
Director
517-335-4056

cc: Mr. Cameron Davis, U.S. Environmental Protection Agency
Ms. Donna Stine, Governor's Office
Mr. Steven E. Chester, Director, MDEQ

**Ministry of Natural
Resources**

Office of the Minister

Room 6630, Whitney Block
99 Wellesley Street West
Toronto ON M7A 1W3
Tel: 416-314-2301
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MNR4046MC-2010-91

February 2, 2010

State of Michigan
Office of the Governor
PO Box 30013
Lansing, Michigan 48909
USA

Attention:
Governor Jennifer M. Granholm

Dear Governor Granholm:

I am writing to express Ontario's concerns regarding the potential spread of Asian Carp into the Great Lakes Basin. I understand that the Director of Michigan's Department of Natural Resources and Environment, Rebecca Humphries, will be testifying before the subcommittee of Water Resources and Environment of The House of Representatives on February 9, 2010.

We have been advised that this hearing presents Ontario with an opportunity to ensure that our concerns regarding the negative environmental and socio-economic impact of Asian carp entering the Great Lakes are considered by the Committee. The people of Ontario appreciate your office's assistance in submitting Ontario's letter as part of Michigan's testimony. Canada and the United States have a long history of shared stewardship of the Great Lakes and we wish to continue to build on this already strong relationship. Our concerns are described below.

The potential introduction of Asian carp into the Great Lakes poses an imminent and substantial threat to the environment and economy of Ontario. As such, it is vital to the Province that immediate action be taken to prevent the introduction of this invasive species. Preventing the introduction of Asian carp into the Great Lakes, is far preferable to, and less costly than, attempts at eradication or control. Prevention measures must be the first line of defence before eradication, which is often only partially effective following establishment of an invasive species.

There will be profound consequences for Ontario if this invasive species is introduced to the Great Lakes. The waters of the Great Lakes are so interconnected that irreparable harm to U.S. states will cause similar harm to Ontario. What happens in Illinois' waters can and will affect the sustainability of the Great Lakes' fish populations shared with Ontario. Preventing the introduction of Asian carp into the Great Lakes and protecting our shared fishery resources is therefore of great national and international importance.

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As shown in the map below, approximately 40% of the shoreline of the Great Lakes and 36% of the waters of the Great Lakes lie within the boundaries of Ontario.



The fishery resources of Ontario's Great Lakes waters have major social, environmental and economic importance to the Province, and all persons who live in the Great Lakes Basin. The economic value of the sport and commercial fisheries in Ontario's portion of the Great Lakes is substantial. Based on 2005 statistics, the combined value of the recreational and commercial Great Lakes fisheries is approximately \$643 million (Canadian). These fisheries and the enormous commercial and governmental investments in these fisheries are at severe risk, should Asian carp become colonized in the Great Lakes system. Lake Erie is likely to be the Great Lake most severely affected.

The sound management of the Great Lakes aquatic resources and water dependent natural resources is vital to the Province of Ontario. Over time, the Great Lakes fishery resources have been diminished and significantly altered through exploitation, degradation of habitat and the introduction or invasion of plant and animal life.

Cooperative decision-making is the best way to manage and conserve a fragile resource. As part of its efforts to manage its fishery resources, the governments of Canada and the Province of Ontario have recognized that coordination and cooperation with the United States is a critical element to ensure that fisheries are maintained in a sustainable way. It is for such reasons that state-provincial agreements, as well as bilateral treaties, have been entered into on water quality, water levels, water removals and fisheries, to ensure their coordinated and effective management and protection.

To date, the Great Lakes jurisdictions have recognized a responsibility to take action within their borders. Ontario and the Great Lakes states have acted together to address the potential threat of the introduction of live Asian carp into the Great Lakes Basin. In 2006 and 2004, respectively, Canada and Ontario amended their regulations to make it illegal to possess, buy or sell live Asian carp within the Province, and we have enforced these regulations. However, this is not enough and does not address the threat that Asian carp pose as they travel up the Mississippi River. Jurisdictions must act quickly and in a cooperative manner as has been done in other contexts.

Previous experiences have shown that the introduction of an invasive species can have devastating affects. For example, zebra mussels, another invasive species, were introduced into the Great Lakes in the mid-1980's. Zebra mussels significantly changed the nature of the Great Lakes ecosystem, increasing water clarity, disrupting the food web and affecting fish habitat by altering the structure and composition of critical spawning habitat. Overall, the impact was a reduction in the amount of food available to native species. In fact, zebra mussels have caused drastic declines in the native Great Lakes clams. An estimate of the amount that has been spent to address problems related to zebra mussels in both the United States and Canada in the Great Lakes Basin is between \$3 and 7.5 billion (Canadian). Between 1989 and 2004, Ontarians alone spent \$120 million (Canadian) on zebra mussel control.

The sea lamprey has had equally devastating affects on the once commercially and environmentally significant Lake trout and other fish. Decimation of Lake trout began when sea lamprey entered Lake Erie and the upper Great Lakes in the early 1920's. So significant was the negative impact that the U.S. and Canadian federal governments entered into the 1954 Convention on Great Lakes Fisheries, one of the purposes of which was to develop a united attempt by the affected U.S. and Canadian jurisdictions to battle the sea lamprey.

The cost of sea lamprey control measures has been substantial; approximately \$20 million (U.S.) annually, of which Canada's contribution in 2009 was \$8.1 million (Canadian). This annual and continual requirement to spend money in an attempt to control sea lamprey has not resulted in their eradication.

It is vital that immediate action be taken to prevent the introduction of Asian carp into the Great Lakes system in order to prevent serious environmental and economic damage to the Province of Ontario.

The Great Lakes are a treasure shared by both Canada and the United States, I appreciate the assistance that your staff have provided to ensure that Ontario's interests and concerns are considered. By working together we can ensure our actions support the concerns expressed by Michigan and others and also ensure that the bi-national aspect of the issue is before the subcommittee.

Sincerely,

A handwritten signature in dark ink, appearing to read "Linda Jeffrey". The signature is fluid and cursive, with the first name "Linda" and last name "Jeffrey" clearly distinguishable.

Linda Jeffrey
Minister of Natural Resources

c: Premier Dalton McGuinty
Rebecca Humphries, Director, Michigan Department of Natural Resources and Environment